In the Specification

Please substitute the following amended paragraph for the paragraph beginning on page 14, line 21:

FIG. 2 shows a setup of TX I/Q channel mismatch and carrier local leakage calibration for 802.11g of a transmitter according to the embodiment of the present invention. First, a discrete-time signal $x[n] = x(nT_s) = e^{j2\pi f_T nT_s}$ is generated by a signal generator 30, where $x(t) = e^{j2\pi f_T t}$ represents a single tone signal, f_T is a real number representing the frequency in Hz of the signal $x(t)$ and T_s is the sampling period. Next, the signal $x[n]$ is passed to an I/Q correction module 31 including local leakage correction module 32 and gain/phase correction module 33, then the corrected signal $x_c[n]$ output by the I/Q correction module 31 is fed to a pair of D/A converters[[34]], <u>the first D/A converter 34A and the second D/A converter 34B,</u> which convert the corrected signal $x_c[n]$ to an analog signal $x_c(t)$. To speak more specifically, the first D/A converter <u>34A</u> converts the real part of the corrected signal $x_c[n]$ to the real part of the analog signal $x_c(t)$ and the second D/A converter <u>34B</u> converts the imaginary part of the corrected signal $x_c[n]$ to the imaginary part of the analog signal $x_c(t)$. The analog signal $x_c(t)$ is applied to an I/Q modulator, which increase the central frequency of the analog signal $x_c(t)$ by f_c Hz and outputting a modulated signal $x_m(t)$, wherein f_c is a preset real number. The modulated signal $x_m(t)$ is then monitored by a spectrum analyzer 36, or other <u>equipment</u> [[equipement]] that can monitor the signal <u>spectrum</u> [[specturm]], to obtain the intensities of the frequency components of the modulated signal $x_m(t)$ at f_c+f_T, f_c-

f_T, and f_c Hz, denoted by $W(f_T)$, $W(-f_T)$, and L, respectively. The $W(f_T)$, $W(-f_T)$, and L are actually values indicative of the power of the equivalent baseband signal of $x_m(t)$ at f_T, $-f_T$, and 0 Hz, respectively. From the point of view of the I/Q correction, the term $W(f_T)$ represents a desired component, which will contain all the energy of the analog corrected signal $x_c(t)$ if the I/Q mismatch is ideally compensated. And the term $W(-f_T)$ represents the image component, which is the additional interfering component at the image frequency due to the I/Q imbalance. And the term L represents the local leakage component, which is the baseband-equivalent DC component incurred by the carrier leakage. According to the obtained data $W(f_T)$, $W(-f_T)$, and L, the ~~software stored in a~~ personal computer (PC) 38 computes the parameters required by the I/Q correction module 31 to minimize the impacts due to the I/Q channel mismatch and local leakage. ~~The software stored in the personal computer performs a different process from the prior art.~~

Please substitute the following amended paragraph for the paragraph beginning on page 21, line 17:

If the image rejection ratio corresponding to the fourth set of (A_p,B_p) is less than or equal to the image rejection ratio corresponding to the fifth set of (A_p,B_p), the fourth set of (A_p,B_p) is chosen as the final set of (A_p, B_p), otherwise, the fifth set of (A_p,B_p) is chosen as the final set of (A_p, B_p). In addition, the final set of (A_p, B_p) can be further multiplied by a normalization factor $\chi = \frac{1}{AA_P + BB_P^*} = \frac{1}{(1-\hat{\alpha}^2)\cdot(1-2Q)}$ to ensure the unity gain of the correction process.

The steps S6 and S8 are performed by the personal computer 38 shown in FIG. 2 [[3]] of the present invention.